CLAIMS

It is claimed:

1. A method of creating network traffic replicating the activities of a large number of users comprising:

receiving a test script including a plurality of commands

invoking a script interpreter

launching an application thread to execute the test script

invoking a protocol engine for each of the commands in the test script such that each protocol engine has an associated command,

each protocol engine executing its associated command.

2. The method of claim 1 wherein the commands in the test script simulate actions taken by a network user.

3. The method of claim 1 wherein the commands in the test script include extended operation operating system commands.

4. The method of claim 3 wherein the extended operation operating system commands include "fetch," "verify," "fetch and verify," "fetch and ignore," "monitor," and "count."

5. The method of claim 1 wherein the test script causes network traffic to be produced.

6. The method of claim 1 wherein each protocol engine executing its associated command comprises:

checking whether a maximum number of protocol engines has been exceeded

performing the executing when the maximum number of protocol engines has not been exceeded.

7. The method of claim 6 wherein the checking further comprises:

waiting for a system defined amount of time until attempting to execute again.

8. The method of claim 6 wherein the checking further comprises:

sleeping until system resources sufficient for the executing of the protocol engine are available until attempting to execute again.

9. The method of claim 1 wherein the network traffic is comprised of a plurality of data units adhering to a plurality of communications protocols.

10. The method of claim 9 wherein the plurality of communication protocols includes at least one of Ethernet, User Datagram Protocol (UDP), Transmission Control Protocol (TCP), Internet Protocol (IP), File Transfer Protocol (FTP), or Hypertext Transfer Protocol (HTTP).

11. A machine readable medium having instructions stored thereon which when executed cause a processor to perform operations comprising:

receiving a test script including a plurality of commands

invoking a script interpreter

launching an application thread to execute the test script

invoking a protocol engine for each of the commands in the test script such that each protocol engine has an associated command,

each protocol engine executing its associated command.

12. The machine readable medium of claim 11 wherein the commands in the test script simulate actions taken by a network user.

13. The machine readable medium of claim 11 wherein the commands in the test script include extended operation operating system commands.

14. The machine readable medium of claim 13 wherein the extended operation operating system commands include "fetch," "verify," "fetch and verify," "fetch and ignore," "monitor," and "count."

15. The machine readable medium of claim 11 wherein the test script causes network traffic to be produced.

16. The machine readable medium of claim 11 wherein each protocol engine executing its associated command comprises:

checking whether a maximum number of protocol engines has been exceeded

performing the executing when the maximum number of protocol engines has not been exceeded.

17. The machine readable medium of claim 16 wherein the checking further comprises:

waiting for a system defined amount of time before attempting to execute again.

18. The machine readable medium of claim 11 coupled with a network testing system.

19. The machine readable medium of claim 18 wherein the network testing system is coupled to a production network.

20. The machine readable medium of claim 19 wherein the network testing system is coupled to a test network.

21. A system to create network traffic simulating the activities of a large number of users, the system comprising:

a plurality of script interpreter units in user space, each script interpreter unit to interpret a script including a plurality of commands,

an application thread in user space for each script interpreter unit

a plurality of protocol engines in user space for each application thread, each protocol engine executing a command included in one of the scripts

an operating system in operating system space.

22. The system of claim 21 wherein the system supports a plurality of communications protocols.

23. The system of claim 22 wherein the plurality of communications protocols includes at least Ethernet, User Datagram Protocol (UDP), Transmission Control Protocol (TCP), Internet Protocol (IP), and Hypertext Transfer Protocol (HTTP).

24. The system of claim 21 wherein the operating system supports extended operations.

25. The system of claim 24 where the extended operations include "fetch and verify" and "fetch and ignore."

26. A system to create network traffic simulating the activities of a large number of users, the system comprising:

a plurality of script interpreter units in user space, each script interpreter unit to interpret a script including a plurality of commands,

an application thread in user space for each script interpreter unit

a plurality of protocol engines in operating system space for each application thread, each protocol engine executing a command included in one of the scripts

an operating system in operating system space.

27. The system of claim 26 wherein the system supports a plurality of communications protocols.

28. The system of claim 27 wherein the plurality of communications protocols include one or more of Ethernet, User Datagram Protocol (UDP), Transmission Control Protocol (TCP), Internet Protocol (IP), and Hypertext Transfer Protocol (HTTP).

29. The system of claim 26 wherein the operating system supports extended operations.

30. The system of claim 29 where the extended operations include "fetch and verify" and "fetch and ignore."

31. A system to create network traffic simulating the activities of a large number of users, the system comprising:

a plurality of script interpreter units in user space, each script interpreter unit to interpret a script including a plurality of commands,

an application thread in operating system space for each script interpreter unit

a plurality of protocol engines in operating system space for each application thread, each protocol engine executing a command included in one of the scripts

an operating system in operating system space.

32. The system of claim 31 wherein the system supports a plurality of communications protocols.

33. The system of claim 32 wherein the plurality of communications protocols includes at least one of the following: Ethernet, User Datagram Protocol (UDP), Transmission Control Protocol (TCP), Internet Protocol (IP), and Hypertext Transfer Protocol (HTTP).

34. The system of claim 31 wherein the operating system supports extended operations.

35. The system of claim 34 where the extended operations include "fetch and verify" and "fetch and ignore."